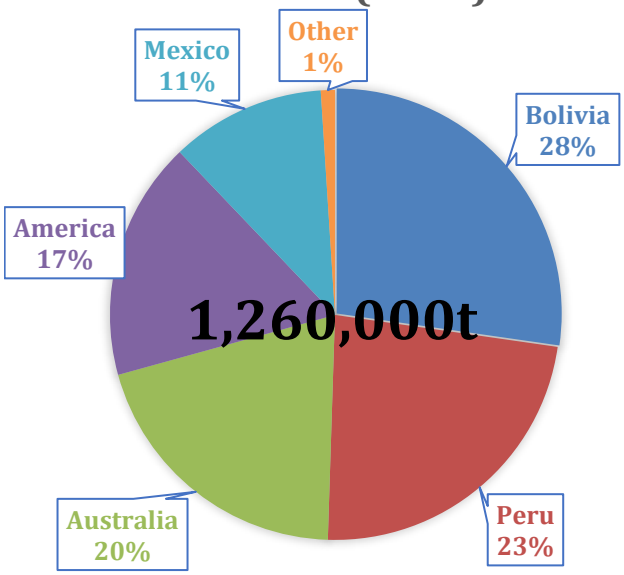
Marine Geology

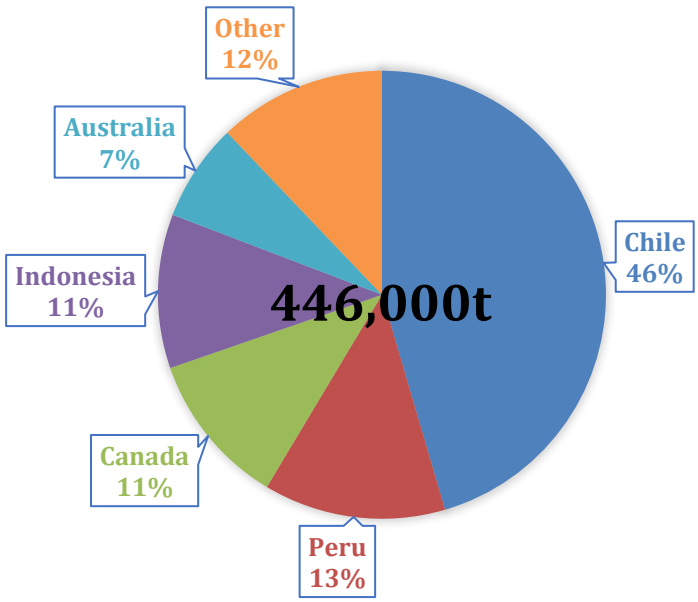
Today, Non metallic minerals can be extracted in Japan, but metal minerals cannot be taken at all. However, there are a lot of mineral resources in the ocean floor of Japan. We are studying about exploration of mineral resources.

Imports(%)

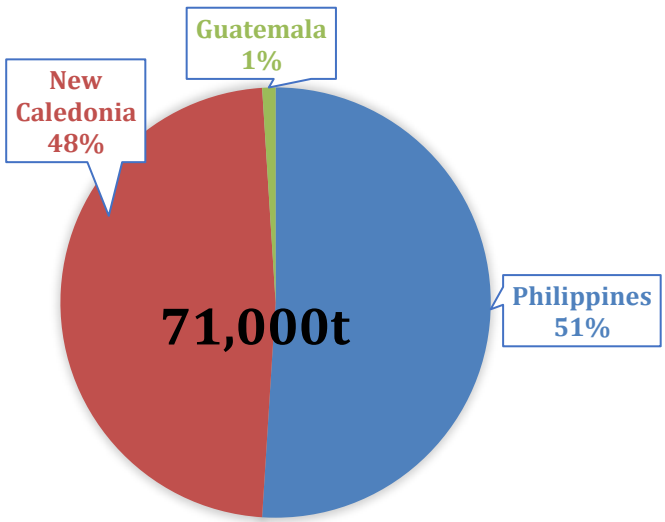
ZINC(2016)



COPPER(2016)



NICKEL(2016)

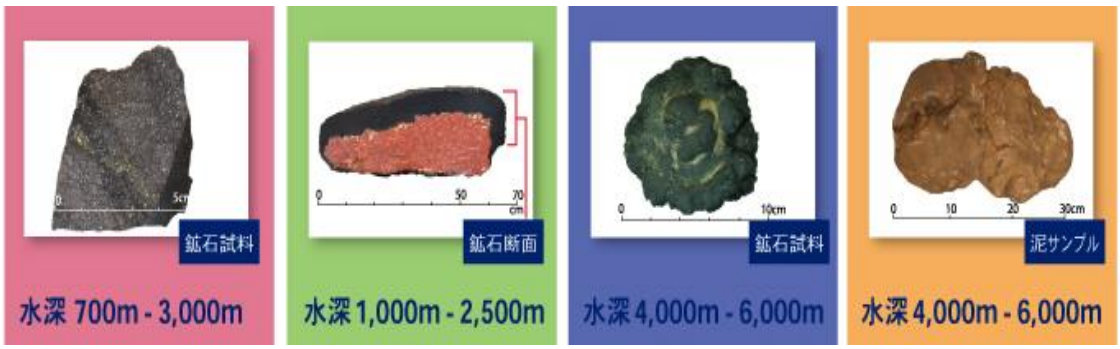


There are so many imports from a large country.

This section of the our major English floor plan was made by Kanta Suzuki, Satoru Tsuzi , Makoto Yanagi

Submarine Mineral Resources

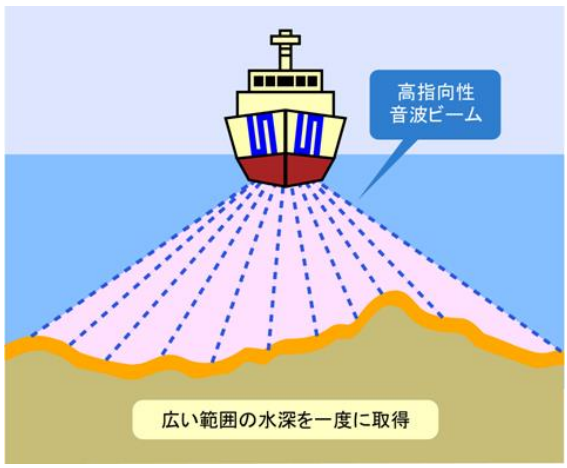
Submarine Mineral Resources are divided into offshore oil, submarine hydrothermal polymetallic ore, gas hydrate and manganese nodule.
Submarine Mineral Resources including submarine hydrothermal deposits, cobalt rich craft, Methane hydrate.
The value of these products is about 300 trillion yen.



Submarine Hydrothermal Deposit | **Cobalt rich craft** | **Manganese Nodule** | **Rare Earth**

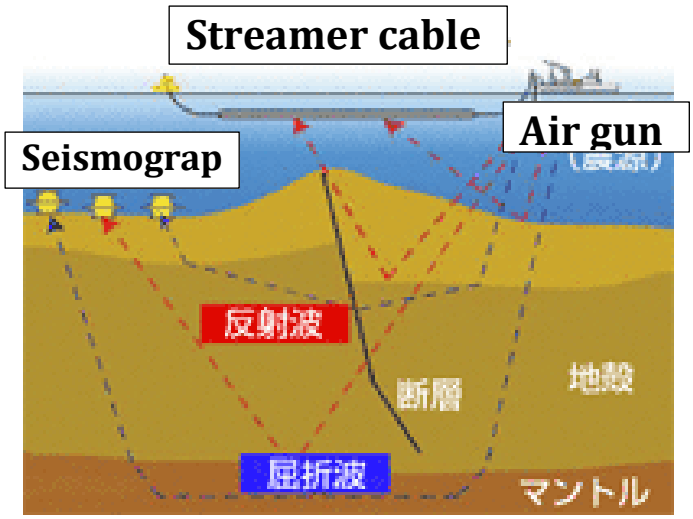
Multi-Beam echo Sounder

Multiple sharp acoustic beams from 12 to 50 khz are transmitted to the seabed to measure the submarine topography from the reflected waves from the seabed.



Seismic Survey

There is a method called the refraction method for seismic survey. We release compressed air from an air gun, fire artificial seismic waves, and catch the reflected waves with a streamer cable or ocean bottom seismograph.



Website names and URLs where you researched some information

Seismic Survey
http://www.nissui.co.jp/frontier/32/05.html
Copper Zinc Nickel Graph
http://www.enecho.meti.go.jp/about/special/shared/img/qzm4-2au5zdkh.png
Rare metal picture
http://www.jogmec.go.jp/metal/metal_10_000002.html
Multi-Beam echo Sounder